

as cored by the same form of spicule, induces me to place these sponges among the Ectyonida. Had there been no fibre, but the spicules massed felt-like as in the Suberitida, I should have placed them, from their cork-like nature, among the latter. Forms clathrous, branched, branches verticillately clathrous; mesenteric, or flat round and perfoliate, caulescent; or vasi-form, thin, open and round, or compressed flabellately; stipitate.

AXINELLIDA.

Group 6. Multiformia.

These have all the characters of the Pluriformia, with the exception of the "echinating spicule," which here projects outwards from the core or axial spicules, and not from the surface of the fibre. Moreover both the axial and the sub-echinating spicules are for the most part alike in form, viz. simple acuate; and the former frequently also the largest, instead of the smallest as in the Pluriformia.

Group 7. Durissima.

For want of the sarcode (in which there might have been a flesh-spicule), I do not know where to place these vase-like skeletons, whose structure, composed of coarse, rigid, open reticulated fibre cored with sub-pinlike fusiform acuates, is very like that of an Australian sponge as yet undescribed (whose flesh-spicule and texture very much resembles that of *Axos Cliftoni*, Gray); but the absence of sarcode about these skeletons prevents the identification.

[To be continued.]

MISCELLANEOUS.

On the Occurrence of a Superorbital chain of Bones in the Arboricolæ (Wood-Partridges). By JAMES WOOD-MASON, of Queen's College, Oxford.

IN his elaborate paper "On the Osteology of the Gallinaceous Birds and Tinamous," read before the Linnean Society on November 25th, 1862, Professor W. Kitchen Parker announced the remarkable discovery, in *Tinamus robustus*, "of a whole row of superorbital bones, the like of which must be sought for, not amongst birds, but in a group of creatures a long way down in the scale," viz. in the Skinks and Blindworms. Further on in the same paper, the presence of a

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similar chain of superorbitals in *Psophia crepitans*, "only in an enfeebled form," is mentioned. The same author, in a memoir "On the Structure and Development of the Skull in the Ostrich Tribe," read before the Royal Society on March 9th, 1865, records the occurrence of a double row of these bones extending all along the superorbital margin from the lacrymal to the postfrontal process in *Tinamus variegatus*.

I have now to announce the occurrence of a similar chain of ossicles in four out of the eight recognized species of *Arboricola*, a genus of Indian partridges, viz. in *A. torqueola*, *atroquularis*, *rufogularis*, and *intermedia*; and I look forward with especial interest to the examination of skulls of the two of the remaining species which have been referred by some authors to the subgenus *Peloperdix*, and which inhabit the Tenasserim provinces and the Malay peninsula.

Mr Parker has pointed out how in the lapwing (*Vanellus*) the frontal in the young bird sends out square denticles of bony substance under and beyond the nasal gland, which coalesce with one another, with the lacrymal in front, and with the postfrontal process behind, so as to form beyond the gland a secondary frontal margin, which acts as a smooth cave to the eyeball—and that the superorbital chain of bones in the tinamou takes the place of this secondary frontal margin and the denticles in the lapwing, the same end being attained by different means. But in the *Arboricolæ* the arrangement is totally different: in them the margins of the combined frontals, so far from being bevelled or scooped for the reception of the nasal gland, are rather prominent, and the internal edges of the ossicles composing the chain come into close relation of apposition with them.

I have examined a considerable number of species of Gallinaceous birds, small and great, including, by the kindness of my friend Major Godwin-Austen, a species of *Bambusicola*, but have hitherto failed to detect so much as a single grain of bone in the superorbital membrane of any one of them.

The *Arboricolæ*, I may add in conclusion, differ from all in not having the temporal fossa bridged by bone, the zygomatic process of the squamosal being quite rudimentary.—*Journal of the Asiatic Society of Bengal*, vol. xliii. part 2, 1874.

On the Helminthological Fauna of the Coasts of Brittany.

By M. A. VILLOT.

The shores of Roscoff, so rich in the lower animals, offer to shore-birds an easily attainable lodging and food as abundant as it is varied. These are, in fact, very numerous there, and certainly play an important part in the economy of the fauna. The species most commonly met with are the following—*Tringa canutus*, *T. alpina*, *Charadrius hiaticula*, *Pluvialis apricarius*, *Calidris arenaria*, *Streptopelia interpres*, *Totanus calidris*, *Limosa rufa*, *Numenius arquata*, *N. phaeopus*, *Hematopus ostralegus*, *Ardea cinerea*, *Larus ridibundus*, *Carbo cormoranus*, *Sterna paradisea*, *S. hirundo*, *S. minuta*, *S. fessipes*, *Uria troile*, and *Fratercula arctica*. The greater number of these